

Listing of Claims:

1. (Previously presented) A semiconductor device, comprising:
 - a substrate;
 - a conductive type semiconductor layer provided on the substrate and having a sectorial or trapezoidal shape including an opening angle of at least 20 degrees; and
 - a transistor provided on the conductive type semiconductor layer such that electric current flows along a grain boundary.
2. (Previously presented) A thin film transistor, comprising:
 - a conductive type semiconductor layer;
 - a source region and a drain region that are separately provided in the semiconductor layer such that electric current flows along a grain boundary;
 - a gate electrode provided above or below the semiconductor layer with an insulating film interposed therebetween; and
 - wherein a channel region is located between the source region and the drain region and a first junction face extends between the source region and the channel region and has a first junction face width, and a second junction face extends between the channel region and the drain region and has a second junction face width, and wherein the first junction face width differs from the second junction face width.
3. (Previously presented) A thin film transistor as claimed in claim 2, wherein the semiconductor layer has a trapezoidal or sector plane shape.
4. (Previously presented) A thin film transistor as claimed in claim 3, wherein the trapezoidal or sector plane shape has an opening angle of at least 20 degrees.
5. (Previously presented) A thin film transistor as claimed in claim 2, wherein the semiconductor layer includes one or more grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the semiconductor layer.
6. (Previously presented) A thin film transistor as claimed in claim 3, wherein the semiconductor layer includes two or more grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the

semiconductor layer, and each of which extends in-plane with the semiconductor layer in correspondence with an opening angle of the trapezoidal or sector plane shape.

7. (Previously presented) A thin film transistor as claimed in claim 2, wherein the semiconductor layer includes at least two grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the semiconductor layer, and wherein at least two of the grain boundaries are adjacent to each other and extend in-plane with the semiconductor layer in correspondence with an opening angle.

8. (Previously presented) A thin film transistor as claimed in claim 2, wherein the semiconductor layer includes at least two crystal grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the semiconductor layer, the semiconductor layer further including two grain boundaries adjacent to each other and in parallel with an in-plane direction of the semiconductor layer.

9. (Previously presented) A thin film transistor as claimed in claim 5, further including a first angle formed by (1) an imaginary line connecting the middle of the first junction face width and (2) an imaginary line connecting the middle of the second junction face width, and a second angle being an opening angle defined by the first junction face width and the second junction face width, wherein the difference between the two angles is at least 20 degrees.

10-14. (Canceled)

15. (New) A thin film transistor as claimed in claim 3, wherein the semiconductor layer includes one or more grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the semiconductor layer.

16. (New) A thin film transistor as claimed in claim 4, wherein the semiconductor layer includes one or more grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the semiconductor layer.

17. (New) A thin film transistor as claimed in claim 4, wherein the semiconductor layer includes two or more grain boundaries, each of which extends in one of the following two directions: (1) from the source region to the drain region and (2) from the drain region to the source region of the semiconductor layer, and each of which extends in-plane with the semiconductor layer in correspondence with an opening angle of the trapezoidal or sector plane shape.

18. (New) A thin film transistor as claimed in claim 6, further including a first angle formed by (1) an imaginary line connecting the middle of the first junction face width and (2) an imaginary line connecting the middle of the second junction face width, and a second angle being an opening angle defined by the first junction face width and the second junction face width, wherein the difference between the two angles is at least 20 degrees.

19. (New) A thin film transistor as claimed in claim 7, further including a first angle formed by (1) an imaginary line connecting the middle of the first junction face width and (2) an imaginary line connecting the middle of the second junction face width, and a second angle being an opening angle defined by the first junction face width and the second junction face width, wherein the difference between the two angles is at least 20 degrees.

20. (New) A thin film transistor as claimed in claim 8, further including a first angle formed by (1) an imaginary line connecting the middle of the first junction face width and (2) an imaginary line connecting the middle of the second junction face width, and a second angle being an opening angle defined by the first junction face width and the second junction face width, wherein the difference between the two angles is at least 20 degrees.

21. (New) A thin film transistor as claimed in claim 2 forming part of a liquid crystal display.

22. (New) A thin film transistor as claimed in claim 5 forming part of a liquid crystal display.

23. (New) A thin film transistor as claimed in claim 9 forming part of a liquid crystal display.

24. (New) A thin film transistor as claimed in claim 2 forming an N-type transistor.

25. (New) A thin film transistor as claimed in claim 2 forming a P-type transistor.